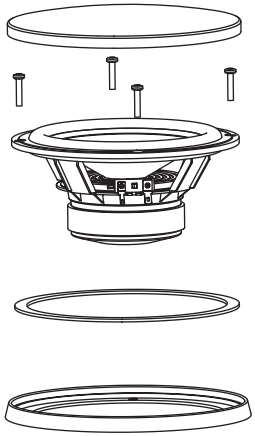
130 KF / 165 KF USER MANUAL

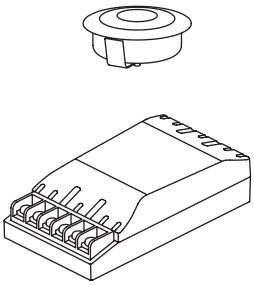
Congratulations on purchasing a product from the K2 Power range. We are happy you share our passion for the "the Spirit of Sound".
Designed using the latest technologies, these speakers continue Focals perfectionist beliefs, developing products with high power handling, and unrivalled sound quality.
To obtain the best results from this product, we recommend that you follow carefully all the information contained in this user's manual.
If not followed correctly any fault observed, may not be covered by the guarantee.

Warning

Continued listening at high volume levels above 110dB, are regarded not ideal for your listening pleasure.
Listening above 130dB can damage your hearing permanently.

The Focal guarantee only applies if the enclosed guarantee card is returned to us within 10 days of purchase.





FOCAL

Features

K2 Power cone
New CKMV sandwich composite, including (Kevlar, foam, and structural glass fibre). Three individual materials, each with their own advantages, allow the cone to be extremely rigid, with continued low mass value, and increased damping characteristics, even when played loud. This ensures improved power handling, with detailed sound quality, low distortion even at high volume levels.

Chassis made from Zamak
Inherently rigid and non magnetic.

Voice coil wound on Kapton former
Light-weight and powerful material ensures no deformation of voice coil.

Butyl moulded rubber surround suspension
Excellent reliability even in the most extreme climates.

TN 47 with inverted dome tweeter
Inverted dome formed from titanium treated Tioxid 5 material. Producing detailed high frequencies, acoustically rich and dynamic.

High precision crossover
Precise level adjustment of tweeter available. High audiophile quality components used throughout.

CE

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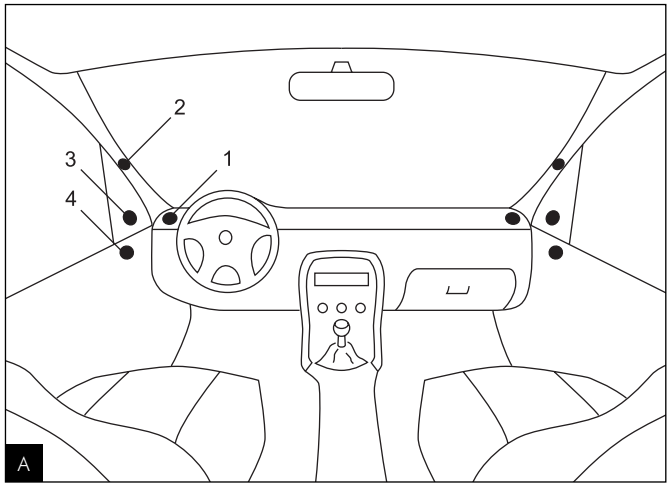
Due to constant technological advances, Focal reserves its right to modify specifications without notice. Images may not conform exactly to specific product.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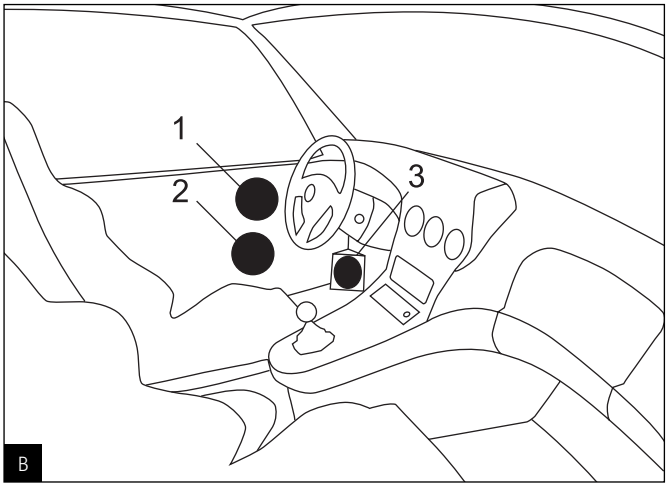
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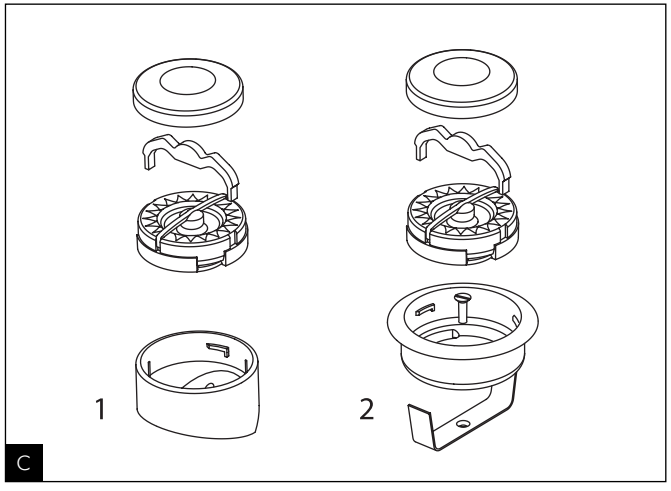
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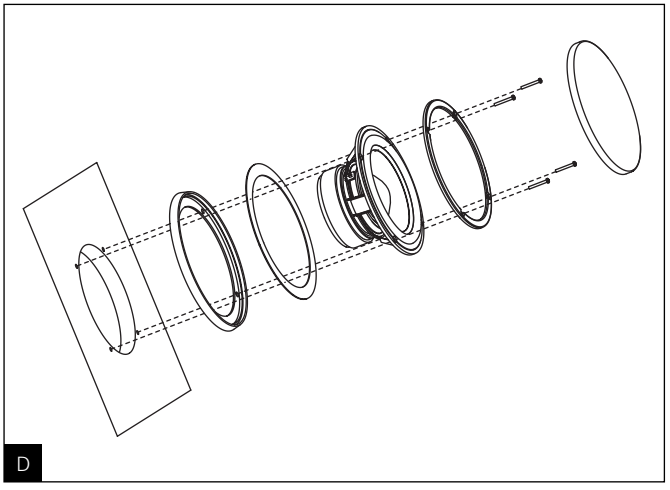
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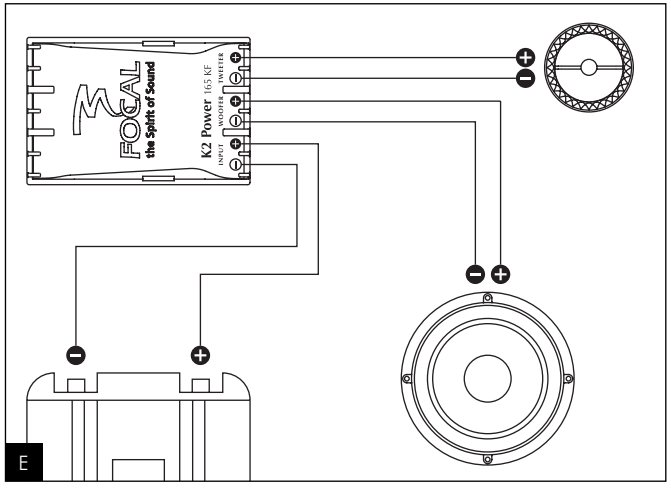
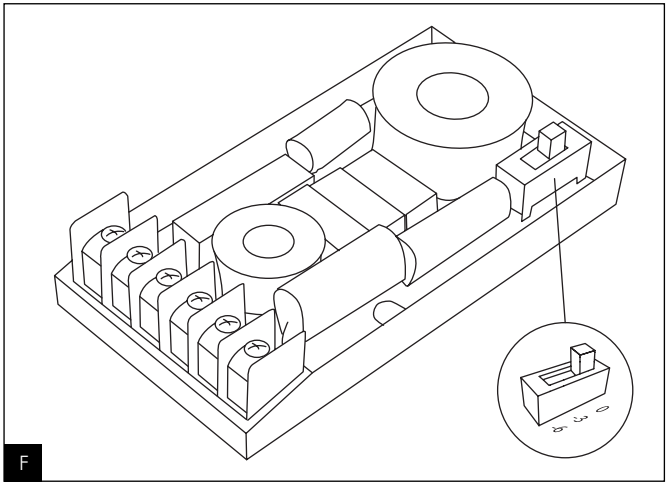

FOCAL
the Spirit of Sound
K2 Power 165 KF
INPUT
WOOFER
TWEETER
E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INSTALLATION AND POSITIONING

Tweeter installation

The TN 47 tweeter has been designed for flush mounting or surface mounting positioning, using the two fixing kits provided. The choice of install position is extremely important to deliver the best performance and to maintain integration into the system. This is a major factor for high frequency SPL, and stability of the acoustics, stereophonic imaging, and overall staging. Please check the drawing to understand this further.
The standard recommendation for an ideal stereo system is to ensure the tweeters "left" and "right" are installed in the same positions. Also they are approximately at equal distance to the driver (vice-versa for the passenger). The various positions advised should be verified and comparisons made, for ideal positioning.
The tweeter should always be positioned ahead of the normal listening position. The main preferences are the ends of the dashboard **(fig. A, 1)**, close to the windshield **(fig. A, 2)**. Normally easy for installation. The location close to the door mirror **(fig. A, 3)** is also regarded as a good position, and normally only a light installation is required. Last, another position, high in the doors **(fig. A, 4)** is also acceptable even if it is not considered as the best for optimised staging. It is imperative to check before any installation is attempted, that enough space is available (especially for flush-mounting applications). Also make sure that there will be no interference with security devices air-bags, door latches etc.

Tweeter installation

Surface-mounting

The flush-mounting fixing kit supplied offers two possibilities for installing the TN47 in an angle of 10°/30°. This allows more flexibility for the installation **(fig. C, 1)**.
Fix the assembly using the two screws provided. Thread the cable from the tweeter, through the back.
Then decide the defined angle and lock in place on the support.

Flush-mounting (highly recommended)

Cut a perfectly round hole of 45mm (1.77"). Push in the support and ensure it remains flat on the surface. Ensure it is locked in place with the screws supplied. Thread the cable from the tweeter, through the back. Then decide the defined angle and lock the tweeter in place on the support. To lock in place, insert the key provided, and turn until locked securely **(fig. C,2)**.

Woofer installation

Recommendations

K2 Power woofers have been designed for a multitude of vehicles installations. It is worth understanding the basic requirements for installing such products. These woofers are capable of delivering enormous amounts of energy, during their positive / negative movement.
Therefore, it is imperative that they are fixed securely to the desired location. The fixing location should also be strengthened where necessary.
Panels should be strengthened to eliminate any unwanted vibrations. Such vibrations will drastically reduce the overall performance. These drive units should be fixed and sealed to the baffle or location panel. The use of the foam gasket is advisable for correct air sealing.
For added performance and to better reduce such unwanted vibrations and any other acoustical losses, we recommend the use of "Plain Chant". Easily positioned behind the woofer, on the metal-work of the vehicle, "Plain Chant" soaks up vibrations as well as acoustic reflections.
Beforehand always ensure that enough space is available for the magnet assembly so that it doesn't interfere with safety mechanisms or any other parts.
In the case of not using the grilles supplied, it is important to ensure the speakers fit correctly. Ensuring there is enough depth behind the speaker has already been explained, but thought must also be given for the forward movement of the cone and surround assembly.

INSTALLATION AND POSITIONING

Woofer installation

K2 Power woofer, positioned ideally high in the doors **(fig. B, 1)**, produce optimal midrange frequencies, thus integrating better into the rest of the system.
The woofers from the K2 Power range can also be placed low in the "kick-panels" **(fig. B, 3)** of the vehicle. This is to further optimize the stereophonic staging.

Woofer fixing

Either cut the required hole or use the pre-fitted space. Make sure the diameter is correct. Where necessary, carefully push in the four fixing clips to fit together with the fixing screws.
Carefully place the fixing ring, ensuring it lines up with the holes or fixing clip positions **(fig. D)**.
Fix the foam gasket to the back of the drive unit chassis. Add a small amount of glue where necessary so it remains in the correct position (lined up with the holes).
Lower the drive unit above the fixing ring, so it remains in the correct position (lined up with the holes).
Don't forget to connect the cable to the connectors.
Now lower the drive unit and screw in place with the four screws provided.
Add the grille and push in place. Ensure the logo is straight.

Crossover installation

Before you start, it is necessary to remove the clear plastic lid. Doing so enables access for adjustment, and fixing the unit in place.
Remove it, by pushing gently on the two shortest sides of the clear plastic lid. Then pull off.
Never use a screwdriver to prise off the lid, otherwise damage might occur and will not be covered by the warranty.
Once removed, fix in place with the 2 screws supplied. Ensure the length of screw is suitable for the desired location. Always ensure the crossover is installed in a dry, vented and not damp area.

2-Way kits connecting up

Connect the output from the amplifier into the input of the crossover "INPUT".
Connect the woofer to the output of the crossover "WOOFER".
Connect the tweeter to the output of the crossover "TWEETER" **(fig. E)**.
Finally always ensure the tweeter and woofer are connected in phase correctly and the polarities are respected "+" to "+", and "-" to "-". If not done correctly a "hole" or "peak" may result due to a shift in phase. This will dramatically impair the overall performance.

Level adjustment of tweeter

The toggle switch found inside the crossover allows the user to adjust the tweeter level. This user-friendly option allows adjustments to be made, to your own personal listening pleasure, plus optimising the infinite amount of the speaker's locations available. This allows the system to be "tailor made" to your vehicle, effectively ensuring the best acoustics available. Remember, with too much treble your system may sound aggressive, suffer a loss of dynamics, and end up in poor definition.
Depending on the level of high frequency required for perfect integration with the woofer, adjust from 0 to –3 and -6db. Normally if the tweeter is positioned close or on axis with the listening position slight reductions of –3 and -6dB are advised.

Information of other K2 Power products

Focal-JMlab offer a range of sub-woofers from the 27 KX (270mm/10.6") to the impressive 46 KX4 (460mm/18"). Consult your dealer for further information.

SPECIFICATIONS

Kit	130 KF	165 KF
Maximum power	140W	160W
Nominal power	70W	80W
Sensitivity	90dB	91dB
Frequency response	70 to 20,000Hz	60 to 20,000Hz
Crossover	3.5kHz to 12/18dB/oct	3.5kHz to 12/18dB/oct
Nominal impedance	4 ohms	4 ohms
Tweeter	TN 47	TN 47
Cone	Inverted Tioxid 5	Inverted Tioxid 5
Magnet	Neodyme	Neodyme
Woofer	5KP	6KP
Cone	5" K2 sandwich 130mm	6" K2 sandwich 165mm
Voice coil	1" - 25mm	1" - 25mm
Magnet	3.4" - 85mm	3.4" - 85mm
Surround	Butyl	Butyl
Resonant frequency (Fs)	89Hz	73Hz
DC resistance (Re)	3.2 ohms	3.0 ohms
Vas	0.17Ft^3 - 4.93 litres	0.27Ft^3 - 7.71 litres
Qes	0.74	0.81
Qms	8.06	9.01
Qts	0.68	0.74
Sd	13.42in^2 - 86.6cm^2	20.57in^2 - 132.7cm^2
Bl	4.27N/A	5.09N/A
Xmax	0.1" - 2.5mm	0.2" - 5mm
Cut -out diameter	4.50" - 115mm	5.60" - 142mm
Mounting depth	2.40" - 61mm	2.80" - 71mm

Running-in period

K2 Power drive units use the very latest components. To ensure such complex mechanical elements work in harmony with each other, they must be allowed to function correctly in the right environment. Changes in temperature and humidity are regarded as very hostile. K2 Power speakers benefit from a running-in period. We recommend that once the system is ready for listening the drive units should be run-in with medium volume setting, with music that has the full bandwidth of frequencies (sub-bass through to treble). This running-in period should be used for a few weeks, to gain the full potential. After which, the excellent performance of your K2 Power products will be fully appreciated.

Conditions of guarantee

All Focal loudspeakers are covered by guarantee drawn up by the official Focal distributor in your country.
Your distributor can provide all details concerning the conditions of guarantee. Guarantee cover extends at least to that granted by the legal guarantee in force in the country where the original purchase invoice was issued.